

REMARKS

In an Office Action dated 4/10/01, the Examiner rejected all claims. Applicant has amended the claims for the purpose of clarification only, and present these amended claims for the Examiner's consideration. Claims 1 and 21-31 are pending in this application.

Obvious-Type Double Patenting

Claims 1 and 21-31 were provisionally rejected under the judicially created doctrine of obvious-type double patenting in view of the claims of copending application 08/798,704. Applicant respectfully traverses, but will consider the issue of a terminal disclaimer should the claims of this application be otherwise found allowable and should application 08/798,704 issue before the present application.

Rejections under 35 U.S.C. 103(a)

Claims 1 and 21-31 were rejected under 35 U.S.C. 103(a) as being unpatentable over as disclosed by Stanczak in "Symantec re-energizes remote-control computing", (hereafter "PC-Anywhere") and further in view of Adams et al, U.S. Patent No. 5,913,920, (hereafter "Adams"). Applicant respectfully traverses these rejections, as set forth below.

The Cited Art

PC-Anywhere is an example of the "species of software which permits a first computer (master computer) to monitor and control the functionality of a second computer (slave computer)." Applicant's specification, page 4, lines 26-28. Applicant gave examples of such software as "Timbuktu" and "Carbon Copy"; PC-Anywhere is simply another example of this type of software. With PC-Anywhere, a remote computer can be remotely controlled by a client computer, and files can be transferred between the two computers. As noted in PC-Anywhere:

Using HTML Hot Links, pcAnywhere can now be embedded into a World Wide Web page. Initiated from a Web browser, this feature will be useful for selective file transfers or spawning a remote application session. *However,*

pcAnywhere must still be installed on the client. (second page, 4th full paragraph, emphasis added)

Adams teaches two computer workstations that are connected together by a communications link. A local workstation includes a window which is used to display a copy of what is currently being displayed on the screen of a remote workstation. That is, each time an update is made to the screen of the remote workstation, it must be transmitted to the local workstation. A bounding rectangle for the area of the screen changed by the update is determined. If the bounding rectangle is greater than a predetermined size, then a first packet is transmitted from the remote workstation to the local workstation, prior to the transmission of the actual update itself. This is to provide quicker feed-back to users of the local workstation that update data is on its way. This first packet indicates the bounding rectangle for the updated area of screen. The local workstation responds to the first packet by shading the corresponding region of the window which contains the copy of the remote screen, thereby indicating to a user of the local screen that an update is imminent.

“Reach out and touch your PC”, Information Week, Wayne Rash, Jr., Sept. 23, 1996 (hereafter “Rash”) was cited on form PTO-892 but was not commented upon by the Examiner. This reference has been reviewed by Applicant, and it simply surveys the remote control software of the time, including pcAnywhere, Timbuktu, and Carbon Copy.

The Prior Art Distinguished

Essentially, the claimed invention makes the keyboard and pointing device of the client computer function as if it were coupled directly to the remote computer. Further, the monitor of the local computer acts as if it were a monitor coupled directly to the remote computer. All of this is accomplished *without* requiring a user of the local computer to install special “remote control” software, i.e. any computer, even a “thin client” or “network pc” can be used to run a host computer over a wide area network, such as the Internet, via a web browser and thereby control the entire functionality of the host computer as a “virtual machine.”

Adams teaches a very different type of system and, in fact, teaches away from the invention claimed by Applicant. With Adams, an application on a remote workstation can be controlled by a local workstation to provide a “collaborative work environment.” The focus of Adams’ invention is that when doing so, the lag time between creating an event at the local workstation (e.g. a mouse click) and receiving the results of that event from the remote workstation (e.g. an update to the display) can cause the operator of the local station to repeat the event unnecessarily.

Adams discusses the World Wide Web (WWW) which is, of course, supported by Internet protocols. More particularly, Adams asserts that the approach of the WWW "is fundamentally driven by the client (i.e. receiving) terminal ... [and] ... is not directly applicable to a collaborative working environment." Col. 1, lines 62-65. That is, Adams is not apply his collaborative working environment processes to an Internet or similar wide area network environment and, in fact, teaches away from such an environment, since to do so would worsen the very problem he was trying to solve.

PC-Anywhere permits remote control of a computer by a client, but pcAnywhere must be installed on both the remote computer and the client. That is, a link to pcAnywhere on the remote computer can be embedded in a web page as a hot link (which can be accessed via a web browser on a client computer), however "*pcAnywhere must still be installed on the client.*" (second page, 4th full paragraph, of PC-Anywhere, *emphasis added*). The present invention does not require any special software to be installed on a client computer and, as such, any computer with a network browser enabled for Java applets or the like can be used to control the functionality of a host computer of the present invention. This is a distinct difference and a huge advantage over the prior art.

It should further be noted that it is improper to combine Adams and PC-Anywhere, since they mutually teach away from each other. Adams teaches that Internet protocols and connections are not to be used, since it increases the latency problems that it is trying to solve. PC-Anywhere, however, is designed to operate in an Internet environment, albeit in a much less elegant and clumsier manner than the invention claimed by applicant.

Even if the two references were combined, neither reference teaches a client program delivered over a network in conjunction with the browser program which can be used to provide event data to a remote computer. Adams, in fact, teaches that remote control programs (e.g. RC 216 and RC 116, *see* Fig. 2) must be installed on the remote and local workstations in order for the collaboration environment to take place. PC-Anywhere likewise indicate that it must be installed on both the client and the host.

Independent claims 1 and 25 have been clarified to clearly point out the fact that the client program is downloaded to the client machine to provide the desired functionality. As such, they are clearly distinguishable from the cited art, taken alone or in any combination. The remaining claims are dependent upon claims 1 and 25 and are therefore patentable for at least the same reasons. Applicant respectfully requests the withdrawal of the rejections of the pending claims.

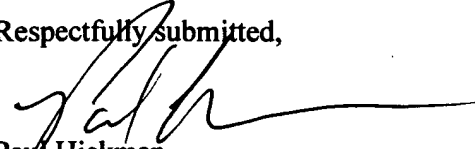
Conclusion

In view of the forgoing, all claims are believed to be in proper form and patentable over the art of record. Applicant therefore requests that the objections and rejections be withdrawn, and the application be allowed to issue.

It should be noted that Applicant has amended the claims in order to expedite prosecution of this application, and not to narrow the claims for the purpose of patentability. Applicant reserves the right to claims of the originally presented scope and variants thereof in continuing applications.

Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,



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Pending Claims including Mark Ups of Amended Claims

1. (amended) A network accessible computer comprising:

a central processing unit;

memory coupled to the central processing unit; and

an interface coupling said central processing unit to a TCP/IP protocol network;

wherein said central processing unit implements a host computer program stored in said memory which permits it to operate as a network-accessible host computer for a client computer[s] coupled to said TCP/IP protocol network, wherein said client computer is operating a browser program having a browser window and a client program transmitted to said client computer via said network to operate in conjunction with said browser program to communicate with said host computer program, wherein input devices of said client computers can be used to generate inputs to said host computer as if the input devices were connected to said host computer, and such that image information generated by said host computer and sent in portions containing incremental changes can be viewed [by] on a display[s] of said client computer[s] as if [they were] it was connected to said host computer.

21. (amended) A network accessible computer as recited in claim 1 wherein said host computer program is responsive to keyboard[s] events and pointing device[s] events of said client computer[s] as transmitted to said host computer over said TCP/IP protocol network [under the control of] in conjunction with said client program[s] running on said client computer[s], said host program transmitting said image information to said client computer[s] over said TCP/IP protocol network for display in said browser window[s] of said browser program[s] running on said client computer[s].

22. (amended) A network accessible computer as recited in claim 21 wherein said image information [is] includes [a] web page information.

23. A network accessible computer as recited in claim 21 wherein said network accessible computer is operable to transmit said client program to said client computer over said TCP/IP network.

24. A network accessible computer as recited in claim 21 wherein said client program is a JAVA applet.

25. (amended) A method of providing a network accessible computer over a TCP/IP protocol network comprising:

providing a host computer connected to a TCP/IP protocol network, said host computer running a host computer program; and

providing a client computer having a display and input devices and running a client computer program and a web browser program, said client program being transmitted to said client computer via said network, where said client computer is connected to said TCP/IP protocol network wherein said client computer program facilitates the transfer of input device events from the client computer to the host computer such that the input devices of said client computer can be used to generate inputs to said host computer as if said input devices were connected to said host computer by sending signals through said network, and wherein image information may be displayed on a display within a window of said browser program running on [of] said client computer as if said display were connected to said host computer by sending signals through said network.

26. (amended) The method of claim 25 wherein said host computer program is responsive to keyboard[s] events and pointing device[s] events of said client computer as transmitted to said host computer over said TCP/IP protocol network [under the control of] as facilitated by said client program[s] running on said client computer.

27. (amended) The method of claim 26 wherein [providing said client computer includes] said host computer provid[ing]es said client computer with said client computer program.

28. The method of claim 27 further comprising:

transmitting encrypted information about said host computer's screen to said client computer over said TCP/IP protocol network.

29. The method of claim 28 wherein said screen information is transmitted once a fixed period of time has transpired since the previous transmittal of said host computer's screen information.

30. The method of claim 29 further comprising:

receiving connection information by said host computer from said client program running on said client computer, where said host computer validates said connection information and

extracts events from said connection information, where said events are placed in said host computer's event queue.

31. (amended) The method of claim 26 further comprising:

establishing a connection between said host computer and said client computer, said connection initiated by said client computer;

transmitting [a] said client computer program from said host computer to said client computer over said TCP/IP protocol network, said client computer program operable to allow input devices of said client computer to generate inputs to said host computer;

transmitting client information from said client computer to said host computer over said TCP/IP protocol network, where said client information includes client interests, client resolution information, and client computer events; and

transmitting host computer screen information from said host computer to said client computer.